

ON A HITHERTO

# UNDESCRIBED DISEASE OF THE UTERUS,

NAMELY,

## UNNATURAL PATENCY OF THE INNER EXTREMITY OF A FALLOPIAN TUBE.

BY J. MATTHEWS DUNCAN, M.D., F.R.C.P.E.,

LECTURER ON MIDWIFERY, ETC.

---

[REPRINTED FROM THE EDINBURGH MEDICAL JOURNAL, JUNE 1856.]

---

IT is the object of this paper to call attention to a pathological condition which has hitherto, so far as I know, escaped the observation of physicians. It consists in continued dilatation of the uterine extremity of a Fallopian tube in the unimpregnated state. It is to be regretted that this condition has not yet been the subject of pathological investigation in the dead body. That demonstration of the disease may, for a long time, be desiderated, for the affection is not fatal, and in *post-mortem* examinations the anatomist is generally careless in observing the condition of parts unconnected with the seat of fatal disease. My confidence in the real existence of this morbid condition of the Fallopian tube, is not staggered by the small amount of actual and direct observation of the condition. For examples are not wanting, in morbid anatomy, of marvellous neglect of morbid appearances, till attention has been particularly attracted to them. In the case of the uterus, the comparative infrequency of its examination by the morbid anatomist, and the fact of the usual examination, even when made, often not revealing the state of this particular part, are sufficient grounds for my at present believing that future researches will discover it.

That the uterine ends of the Fallopian tubes are not always in that state of contraction, to the dimension of a bristle or hair, which alone anatomists describe, will, I think, be admitted by all, on a

little reflection ; although very few, probably, have distinctly recognised it. The non-observation of any but the contracted condition, is no evidence against its temporary dilatation, as a physiological or natural condition, exactly as the non-observance of its permanent dilatation is no proof of its non-existence as a pathological state.

Embryologists agree that, before reaching the uterine cavity, the fragile ovum, with its already partially villous chorionic coat, is of a line or somewhat more in diameter, or, at least, much greater than to pass through a capillary strait like the inner end of the tube. For the transmission of this delicate and fragile organism, a free passage is undoubtedly necessary. In the larger portions of the tubes, longitudinal folds of the mucous membrane are observable, which are seemingly an arrangement to admit of dilatation of these parts. These folds cannot be traced in the capillary portions. But these portions must, nevertheless, dilate to transmit the ovum on its passage from the ovary to settle and take root in the uterine cavity. Further, although not to be ranked among natural phenomena, we may allude to the now numerous observations of tubal gestation, where the developed embryo or *fœtus* is on the side opposite to that of the corpus luteum. In these cases, if our present laboriously acquired views with regard to the corpus luteum have any truth (which no one can doubt), then one of two occurrences must have taken place. Either the ovum must have passed from the ovary of one side to the tube of the opposite side, *via* the peritoneal cavity, an almost inconceivable route ; or, it must have passed along the tube of its own side, entered the cavity of the womb, traversed it, and ascended the tube of the opposite side.<sup>1</sup> It needs scarcely be said, that the latter hypothesis has been generally adopted, and it implies the dilatation of one tube to emit the ovum, and of the other subsequently to admit it. Lachapelle, indeed, seems to think it probable that, in some cases, extra-uterine pregnancy is to be referred, not to arrest of the progress of the *ovule*, but to a retrogression, as she calls it, of the *fœtus*, from the uterine cavity through the orifice of a dilated tube.<sup>2</sup>

In cases of morbid or unnatural pregnancy, dilatation of the inner end of a tube has been not unfrequently discovered. For example, Dr Campbell relates the case<sup>3</sup> of a female who died after an illness of twenty-two hours. "She had formerly been once pregnant, but

<sup>1</sup> Since the text was written, I find a third theory of this occurrence has been proposed. I give it in the words of Dr Tyler Smith, from whose very valuable lecture, in the *Lancet*, April 12, I quote :—"Or the left tube may have reached over to the right ovary, and have taken up the ovule. This was the opinion to which, I believe, Dr Oldham and Mr Wharton Jones inclined."

<sup>2</sup> *Pratique des Accouchemens*, tom. iii., p. 93. The obstetric reader scarcely needs to be reminded, that since the earliest times to the present, it has been held by some physiologists, that the *os uteri* becomes dilated during sexual congress.

<sup>3</sup> *Memoir on Extra-Uterine Gestation*, p. 93.

aborted, and on the present occasion she had been obstructed six weeks, and been subject to dyspnoea. The body was examined, when about three pounds of serum were found in the right sac of the pleura; and in the lower part of the abdomen and pelvis, nearly the same quantity of blood, partly fluid and partly coagulated. The right Fallopian tube, to the extent of an inch, in its course from the uterus, was dilated to about six lines in diameter; and a ragged oval aperture, rather smaller than the circumference of a coffee-bean was seen on the anterior aspect of the dilated portion, but no embryo could be discovered." Another class of examples is found in cases of tubo-uterine gestation, such as that of Patuna recorded by Sandifort,<sup>1</sup> where, on dissection, a foetus was found in the abdominal cavity, connected to the placenta attached in its usual site, by the cord, which passed from the uterus along the inner end of the tube for an inch, and then emerged into the abdomen. The cases of Hey, of Hofmeister, and of Feilitz, are more or less analogous to this, and need not be referred to more particularly. Laugier, in the twenty-eighth volume of the *Archives Générales de Medicine*, relates two marvellous cases of this description. In one, after delivery of a child, he introduced a hand into the uterus, and examined another body lying in the right Fallopian tube, introducing his finger into the tube, through its dilated uterine extremity. In the other, also a case of delivery, the child was, for the most part, in the Fallopian tube, from which he extracted it footling.<sup>2</sup> According to Lachapelle,<sup>3</sup> Planchou (*Operation Césarienne*) has frequently observed a notable dilatation of these orifices.

These morbid pregnancies are not the only cases of this unnatural patency found on dissection. For that exact observer, Morgagni, in describing the uterus of a woman affected with hydatids, says,<sup>4</sup> that each of the tubes was, near the uterus, increased in thickness, and not only pervious but dilated, and that that part of the left was full of almost limpid mucus. In an article on catheterism of the Fallopian tube, Dr Tyler Smith has the following passage, mentioning a case of dilatation, and to some extent anticipating the subject-matter of this paper as well as of his own. "I believe," says he, "the Fallopian tubes have occasionally been probed by others, though unintentionally. Meeting Mr Walter Bryant of Bathurst Street, in consultation, a short time ago, that gentleman assured me, that he once saw the uterine sound used for purposes of diagnosis, in a case in which it was passed into the uterus to such a depth, as could not be accounted for by the length of the uterus. The patient died of organic disease, a considerable time afterwards, and, on examination, it was found that one of the Fallopian tubes was con-

<sup>1</sup> *Thesaurus Dissertationum.* Vol. III., p. 325.

<sup>2</sup> See Campbell's *Memoir on Extra-Uterine Gestation*.

<sup>3</sup> *Pratique des Accouch.* Tom. III., p. 94.

<sup>4</sup> *Letter XXI., Art. 47.*

siderably dilated, so that there was little doubt that the sound had passed into it."<sup>1</sup>

In other instances, this morbid condition is left to be inferred with more or less of assurance. It is well known that numerous cases exist of haemorrhage into the Fallopian tubes, and of collections of fluid or dropsies in them. In such, the tubes are in general actually or potentially sealed at both extremities. Sometimes, however, the blood has found its way into the peritoneum. At other times, the blood or other collected fluid has been discharged per vaginam. Thus, Boivin and Duges<sup>2</sup> mention a case, related by Frank, where serous matter from the Fallopian tubes was discharged through the uterus and vagina, to the extent of a pint a day; the patient died of consumption, and thirty-one pints of aqueous and gelatinous matter were found in the left Fallopian tube. To this case numerous analogues may be found in cases of discharge from ovarian cysts through the tubes. This state of matters is sometimes described as the hydrops tubarum profluens, and is discussed under that title by Kiwisch.<sup>3</sup> This author, indeed, describes these tubes, as sometimes, during menstruation, yielding a bloody discharge. A case of Brodie's is, on the other hand, often alluded to, where retained menstrual secretion passed from the uterus into the abdomen, through a tube. We also find Rokitansky and Kiwisch both describing catarrh of the tubes as co-existing with the same disease of the uterus and vagina.

The evidence upon which I have chiefly relied for the diagnosis of this disease, is afforded by the use of a probe. In the cases, upon which I chiefly build, there was no tumour of the womb, or other pelvic viscera, to cause confusion. The probe, passed through the os uteri, advanced with the least possible pressure, so far as to be certainly beyond the uterus. Indeed, however far it was advanced, no obstacle was felt to pressing it still farther, except its own length, and the motive of caution. Its point could be felt through the abdominal wall far above the pelvis. In passing, it always took a decidedly lateral direction. If, in the early part of its progress, its point were kept directed to the unaffected side, it experienced an arrestment; when changed to the other side, it glided forwards with the greatest ease. Under these circumstances, I submit that it must have passed through a dilated Fallopian tube into the abdominal cavity. This phenomenon I have, in several cases, observed. In the two examples, the data of which I shall presently give, there were, in addition, present, anomalous symptoms in the one; and, in the other, there were copious haemorrhages, probably coming from the affected tube.

That the probe did not enter the track of an abscess, is evident,

<sup>1</sup> *Lancet* II., 1849, p. 118.

<sup>2</sup> *Diseases of the Uterus.* *Heming's Translation*, p. 501.

<sup>3</sup> *Klinische Vorträge*, II. *Abtheilung*, s. 214.

because, in the one case, there was no abscess ; and, in both, this idea was negatived by the facility of the passage into the canal, by the mobility of the uterus, by the freedom of the probe's motion, and by the facility of feeling it through the anterior abdominal wall. That the probe did not perforate the uterus is certain, for it was passed repeatedly, and without the use of any force. Moreover, the cure of the affection was distinctly noted by the impossibility of passing the probe through the os farther than is usual. When seeing these cases, I was quite aware of this source of error, having heard of several examples where it was undoubtedly done. Fortunately, this awkward and unintentional thrust seems to be unattended with any great danger, if the uterine walls are not disorganized, as in cancer, when the softness and deficient elasticity will allow the small, and in this case easily produced perforation to gape, after withdrawal of the probe, and the hole giving issue to blood or uterine discharges, will speedily light up peritonitis.<sup>1</sup> In the healthy state of the tissues it is different. I have known the perforation to be seen after death, where it was made in course of a difficult diagnosis shortly before ; and I have seen an undeveloped uterus, not bigger than the end of the thumb, through whose os a probe had been repeatedly passed for inches, without any bad result.<sup>2</sup>

The diagnosis from that affection, described by Hooper, Simpson, Beck, and others, as morbid hypertrophy after delivery, but better under the new name of deficient or arrested involution, is sufficiently decisive, although I think it is more than probable that some cases described, as of deficient involution, were of this kind. The length to which the probe passes in deficient involution, is only a little more than in natural cases ; here its passage is for many inches. In the former, it may pass for three inches or occasionally even more ; in the latter, it will pass easily twice as far. In deficient involution the probe is always felt to be contained within the thick uterine walls, to have its direction determined by the direction of the uterine mass, and to have its movements limited by it. In this disease, all these circumstances are altered.

The following details of two cases, are far from being so perfect as I could wish. Their brevity arises partly from my having, in the previous part of this paper, already described some of the circumstances of them.

Mrs N. æt. 35, came from a midland county to consult me, under

<sup>1</sup> Perforation slowly produced by the advance of ulceration, such as, I believe, has happened from the pressure of the point of an intra-uterine pessary, will, of course, be almost certainly fatal, and does not belong to the categories discussed in the text.

<sup>2</sup> Sir B. Brodie, speaking hypothetically of catheterism of the Fallopian tube, says, " But I suppose the Fallopian tube would bear no rude treatment, and that the accidental perforation of it would be certainly fatal."—*Lancet*, II., 1849, p. 119. If the remarks in the text are well founded, this opinion of Sir Benjamin's is groundless.

the following circumstances. Her illness commenced four and a half years previously. Before that time she had had three children, and except while engaged with them, had always regularly menstruated. Since four and a half years ago, has had two children, proved a good nurse as on former occasions, and up till the present time, has not menstruated. At that time, just about the commencement of her third pregnancy, she suffered much from a feeling of cold in the vagina and uterus. In a few weeks this changed into a painful feeling of heat, which has continued ever since, with remissions and exacerbations. After the birth of the child she suffered much from pain in the uterine region, but was able to be out of bed in a week. Twenty-one months after this confinement, she fell a fifth time in the family way, and again suffered much from uterine pain after her delivery, which was about fourteen months ago. She has had (unless after delivery) no discharge, except an occasional inconsiderable leucorrhœa. She has a clean tongue, and good appetite, but looks anxious, and complains of great weakness and inability for exertion.

The right leg is always slightly œdematos. The belly is considerably distended, giving everywhere a tympanitic sound. On making a vaginal examination, the uterus presents no unnatural feeling to the finger. A probe passed into it goes up towards the right side, without any force, for eight inches. She was ordered to inject into the vagina at bed-time, half a quart of cold water, holding in solution fifteen grains of sulphate of zinc, and the same quantity of alum ; to apply a flannel cloth, dipped in hot turpentine every night, or every second night, over the hypogastrium ; and to take internally small doses of Battley's liquor of ergot, and of ammonio-citrate of iron, three times daily. With these directions she returned to the country. In two months she sent a messenger to me to say she was somewhat better. She at that time began again to menstruate. In a year she came again to see me, having lost her former painful symptoms, the periods being regular, the swelling of the leg being also gone. On using the probe with all diligence, it could be passed only two and a half inches.

Three weeks after Mrs R.'s confinement, I was asked, by a late medical friend, to see her along with him. She had a large abscess at the right side of the uterus, discharging copiously per vaginam. Under appropriate treatment the pelvic swelling entirely disappeared, and the uterus became mobile, but the purulent discharge continued abundant. After a lapse of many weeks, she was subjected to careful examination, when nothing unnatural was discovered, except that the probe passed easily through the uterus towards the right side for six or seven inches, and its point could be felt through the abdominal parietes. The woman was ordered to use ten drop doses of the syrup of iodide of iron thrice daily, and to have the

right hypogastric region painted over twice daily, with the tincture of iodine. After some weeks of this treatment, the discharge gradually diminished and disappeared. But a copious bloody discharge, amounting to a haemorrhage, took its place. It recurred at intervals of from a fortnight to three weeks, and continued for several days to an alarming amount. The probe entered the uterus as before. The ordinary treatment for haemorrhage by acids, opium, posture, etc., was diligently carried out. In addition, she was made to inject cold water into the vagina, a remedy which seemed to have the most beneficial effect in arresting the floodings. After a year and a half's illness, she began to improve, and at last the excessive discharges ceased, the uterus then admitting the probe a little less than three inches.

